

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listing of claims in the above-referenced application.

Listing of Claims:

1. (Previously Presented) A computer implemented method of scanning a storage device for viruses, comprising:

determining, by the storage device, each track of the storage device that has been accessed for a write operation since a previous virus scan using information about tracks of the storage device without using file-based information, the file-based information including information about file structure, file system, and file type;

providing, to an antivirus unit by the storage device, information indicating which tracks of the storage device have been accessed for a write operation since the previous virus scan; and

scanning, by the antivirus unit using the information provided by the storage device, at least a portion of each track identified as having been accessed for a write operation since the previous virus scan for viruses, wherein scanning is performed without using the file-based information.

2. (Cancelled)

3. (Previously presented) A method, according to claim 1, wherein the portion corresponds to a sector of the storage device.

4. (Previously presented) A method, according to claim 1, wherein the portion corresponds to a subportion of the storage device.

5. (Previously presented) A method, according to claim 1, wherein said determining each track of the storage device that has been modified includes:

creating a table that is indexed according to each track and has entries indicating whether a corresponding track has been modified, the entries being cleared after a virus scan to indicate that no tracks have been modified; and

setting a specific one of the entries in response to a corresponding track of the storage device being subject to a write operation.

6. (Original) A method, according to claim 5, wherein creating the table includes copying an other table provided by the storage device.

7. (Original) A method, according to claim 5, wherein creating the table includes using an other table provided by the storage device.

Claims 8 - 21 (Cancelled).

22. (Previously Presented) A computer program product for scanning a storage device for viruses, the computer program product including a computer-readable medium with executable code stored thereon for:

determining, by the storage device, each track of the storage device that has been accessed for a write operation since a previous virus scan using information about tracks of the storage device without using file-based information, the file-based information including information about file structure, file system, and file type;

providing, to an antivirus unit by the storage device, information indicating which tracks of the storage device have been accessed for a write operation since the previous virus scan; and scanning, by the antivirus unit using the information provided by the storage device, at least a portion of each track identified as having been accessed for a write operation since the previous virus scan for viruses, wherein scanning is performed without using the file-based information.

23. (Cancelled)

24. (Previously presented) A computer program product, according to claim 22, wherein the portion corresponds to a sector of the storage device.

25. (Previously presented) A computer program product according to claim 22, wherein the portion corresponds to a subportion of the storage device.

26. (Previously presented) A computer program product, according to claim 22, wherein said code for determining each track of the storage device that has been modified includes code for:

creating a table that is indexed according to each track and has entries indicating whether a corresponding track has been modified, the entries being cleared after a virus scan to indicate that no tracks have been modified; and

setting a specific one of the entries in response to a corresponding track of the storage device being subject to a write operation.

27. (Previously presented) A computer program product, according to claim 26, wherein said code for creating the table includes code for copying an other table provided by the storage device.

28. (Previously presented) A computer program product, according to claim 26, wherein said code for creating the table includes code for using an other table provided by the storage device.

Claims 29 - 40 (Cancelled).

41. (Previously Presented) An antivirus unit, comprising:

means for coupling to at least one storage device;

means for determining each track of the storage device that has been accessed for a write operation since a previous virus scan using information about tracks of the storage device without using file-based information, the file-based information including information about file structure, file system, and file type;

means for receiving, from the at least one storage device, information determined by the at least one storage device indicating which tracks of the at least one storage device have been accessed for a write operation since the previous virus scan; and

means for scanning, using the information provided by the storage device, at least a portion of each track identified as having been accessed for a write operation since the previous virus scan for viruses, wherein scanning is performed without using the file-based information.

42. (Canceled)

43. (Previously presented) An antivirus unit, according to claim 41, wherein the portion corresponds to a sector of the storage device.

44. (Previously presented) An antivirus unit, according to claim 41, wherein the portion corresponds to a subportion of the storage device.

45. (Previously presented) An antivirus unit, according to claim 41, further comprising:
a table that is indexed according to each track and has entries indicating whether a corresponding track has been modified, the entries being cleared after a virus scan to indicate that no tracks have been modified; and

means for setting a specific one of the entries in response to a corresponding track of the storage device being subject to a write operation.

46. (Original) An antivirus scanning unit, according to claim 41, wherein said means for coupling includes means for coupling to only one storage device.

47. (Original) An antivirus unit, according to claim 41, wherein said means for coupling includes means for coupling to more than one storage device.

48. (Original) An antivirus unit, according to claim 41, further comprising:
means for coupling to at least one host.

49. (Original) An antivirus unit, according to claim 48, wherein said antivirus unit is interposed between said at least one storage device and said at least one host.

50. (Original) An antivirus unit, according to claim 48, wherein said antivirus unit is implemented as a process running on the at least one host.

51. (Original) An antivirus unit, according to claim 41, wherein said antivirus unit is implemented using stand alone hardware.

52. (Original) An antivirus unit, according to claim 41, wherein at least a portion of the antivirus unit is provided on at least some controllers for the at least one storage device.

Claims 53 - 62 (Cancelled).

63. (Previously presented) The method of Claim 1, wherein said storage device includes one or more sectors, and the method further comprising:

determining, for each sector of said storage device for a current virus scan, whether said each sector has been modified since a previous scan; and

for said current virus scan, scanning only those sectors determined to have been modified since said previous scan.

64. (Previously presented) The computer program product of Claim 22, wherein said storage device includes one or more sectors, and the computer-readable medium further comprising code stored thereon for:

determining, for each sector of said storage device for a current virus scan, whether said each sector has been modified since a previous scan; and

scanning only those sectors determined to have been modified since said previous scan.

65. (Previously presented) The antivirus unit of Claim 41, wherein said storage device includes one or more sectors, and the antivirus unit further comprising:

means for determining, for each sector of said storage device for a current virus scan, whether said each sector has been modified since a previous scan; and

means for scanning only those sectors determined to have been modified since said previous scan.

66. (Previously presented) The method of Claim 1, wherein the antivirus unit is included in the storage device.

67. (Previously presented) The method of Claim 66, wherein the antivirus unit is included in a disk controller of the storage device.

68. (Previously presented) The method of Claim 67, wherein the antivirus unit is included as software running on the disk controller.

69. (Previously presented) The method of Claim 67, wherein the antivirus unit is configured to use at least a portion of hardware that is separate from hardware of the disk controller.

70. (Previously presented) The method of Claim 67, wherein the disk controller is a first disk controller of a plurality of disk controllers included in the storage device, the antivirus unit

is a first antivirus unit of a plurality of antivirus units included in the storage device, and each of said plurality of disk controllers includes a different one of said plurality of antivirus units.

71. (Previously presented) The antivirus unit of Claim 41, wherein said antivirus unit accesses data on the at least one storage device over a first connection and the information is provided on a second connection different from the first connection between said antivirus unit and the at least one storage device.